

**BEL MARIN KEYS UNIT V EXPANSION OF THE
HAMILTON WETLAND RESTORATION PROJECT**

GENERAL REEVALUATION REPORT

DRAFT

Novato, Marin County, California
Draft Report
July 2002

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**Prepared by the
U. S. Army Corps of Engineers
San Francisco District**

In cooperation with

**The California State Coastal Conservancy
and
The San Francisco Bay Conservation and Development Commission**

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HAMILTON WETLANDS RESTORATION PROJECT
NOVATO, MARIN COUNTY, CALIFORNIA**

EXECUTIVE SUMMARY

Introduction

This study, prepared in cooperation with the non-Federal sponsor, The California State Coastal Conservancy (SCC), provides a general re-evaluation of the Hamilton Wetland Restoration Project (HWRP, authorized in WRDA '99) and identifies a feasible expansion of the project. As authorized, the HWRP will beneficially re-use approximately 10.6 million cubic yards (mcy) of dredged material to restore habitat on 950 of the 988 acres of former Hamilton Army Airfield (HAAF) and the adjacent State Lands Commission (SLC) property. If expanded to include the Bel Marin Keys Unit V (BMK) parcel, the expanded HWRP would beneficially re-use 23.6 mcy of dredged material to restore 2,526 acres of habitat on the enlarged 2,598-acre project site. A Draft Supplemental Environmental Impact Statement/ Environmental Impact Report (EIS/EIR) accompanies this Draft General Reevaluation Report.

Location and Study area

The study area is located 25 miles north of San Francisco in the City of Novato, Marin County, California, on the west side of San Pablo Bay (Figure 2-1). The study area covers 2,598 acres including 6 acres levee easement from the City of Novato and consists of four parcels of land including: the 644-acre Hamilton airfield parcel, the 18-acre Navy ball fields, the 319-acre SLC property, and the 1,610-acre BMK parcel, (Figure 2-2). The remainder of the original 2,184-acre air base has been sold for private development (except for one area retained by the US Coast Guard).

Objectives

Diking or filling tidal areas for land reclamation has destroyed most of the tidal wetlands that historically fringed San Francisco Bay. The project expansion site, which was historically dominated by tidal salt marsh habitat, was converted over the last 150 years to agricultural use. The Hamilton Wetlands Restoration Project is part of the growing effort to restore portions of these former salt marshes and thereby provide increased areas of this threatened vital wildlife habitat. The project is also pivotal to the goals of local resource agencies as expressed in the Long Term Management Strategy (LTMS) for San Francisco Bay. The LTMS sets plans and target goals to maximize the beneficial re-use of dredged material and minimize open water in-bay disposal from navigational maintenance and channel deepening projects. The expanded HWRP site would have a capacity to accommodate up to 23.6 mcy of dredged material and therefore presents a significant opportunity to facilitate the objectives of the LTMS.

There are two project objectives: (1) create a diverse array of wetland and wildlife habitats that benefit a number of threatened, endangered and other species, and (2) reduce open-water dredged material disposal and beneficially re-use that material to the maximum extent practicable.

The project fulfills both the Federal interest requirements and the needs of the non-Federal sponsor, SCC. The wetland restoration plan formulation involved extensive coordination with SCC, the Bay Conservation and Development Commission (BCDC), the City of Novato, various federal and state agencies, organizations, and the public.

Planning constraints

Two endangered species, the California Clapper Rail and Salt Marsh Harvest Mouse, may be present on portions of the site. While the project would greatly increase habitat for both species, protective measures during certain construction activities, or during nesting periods, may be required to insure no disturbance to the existing salt marsh habitat on the bayside of the levees that these animals may currently occupy.

Another concern is chemical suitability standards for use of dredged material for wetland creation. Only dredged materials that have chemical concentrations and sediment toxicity below levels that could harm wetland biota will be accepted for this project.

The Novato Sanitary District (NSD) outfall pipeline runs through a 20-foot wide easement for two miles along the north boundary of the airfield and south boundary of the SLC property. Currently, along this pipeline on the SCC parcel is a dechlorination facility. This facility will be relocated out of the project area. The New Hamilton Partners (NHP) storm-water discharge outlet must also be protected.

Final Array of Alternatives Considered

No action

Under the No Action Plan, HWRP would proceed as authorized. The BMK parcel would not be included and delays due to HTRW remediation could occur. The environmental benefits of the proposed expansion project would not be realized.

Alternative 1, Beneficial Reuse of Dredged Material with Expanded Pacheco Pond

This alternative would result in 1,089 acres of wetland habitat. Dredged material would be used to accelerate marsh establishment.

Alternative 2, Beneficial Reuse of Dredged Material with Seasonal Wetlands

This alternative would result in 1,249 acres of wetland habitat. Dredged material would be used to accelerate marsh establishment and raise elevations for seasonal wetlands.

Alternative 3, Natural Sedimentation

This alternative would result in 1,284 acres of wetland habitat. Once outboard levees are breached, tidal sedimentation would slowly fill the tidal portions of the project.

Comparison of alternatives

Table 4-1 compares features, acres, and levee lengths of the alternatives. Section 4.2 provides an incremental analysis of restoration alternatives. Section 4.3, System of Accounts, considers National Ecosystem Restoration (NER), Environmental Quality (EQ), Regional Economic Development (RED), and other social effects. Associated evaluations included those for completeness, effectiveness, efficiency, and acceptability. The trade-off analysis compares the no action alternative, to the action alternatives and evaluates the trade-offs between action alternatives.

The analyses show that beneficial use of dredged material would provide faster wetland restoration than natural sedimentation. In addition, the use of dredged material would provide a greater diversity of habitat. The project is cost-effective at maximizing outputs, meeting objectives and fulfilling both the Federal interest requirements and the needs of the non-Federal sponsor.

Tentatively Recommended Plan

Alternative 2, Beneficial Reuse of Dredged Material with Seasonal Wetland, was selected because it provides the greatest diversity of habitat, allows for most efficient beneficial reuse of dredged material, provides critical endangered species habitat in the shortest amount of time, replaces the greatest amount of seasonal wetland and allows the greatest degree of operational flexibility. Given all these considerations, Alternative 2 best addresses the study objectives of ecosystem restoration and beneficial reuse of dredged material. Alternative 2 also best addresses the other evaluation criteria of completeness, effectiveness, efficiency, and acceptability, while minimizing ongoing management. Therefore, it is selected as the tentatively recommended plan.

Summary of costs

The total final cost to construct the selected plan for the Hamilton Wetland Restoration Project (4th Quarter 2001 price levels) would be \$142,500 (75% Federal, \$105,600, and 25% non-Federal, \$35,200,000) cost sharing for wetland restoration using dredged material. The total final cost for recreation features would be \$400,000 Federal and \$1,300,000 non-Federal. The total annual operations and maintenance (O&M) cost would be \$288,200.

List of Acronyms

APE - Area of Potential Effects
BA - Biological Assessment
BCDC - San Francisco Bay Conservation and Development Commission
BMK – Bel Marin Keys Unit V
BRAC - Base Realignment and Closure Act
BO - Biological Opinion
CAR - Coordination Act Report
CDFG - California Department of Fish and Game
CEQA - California Environmental Quality Act
cfs - Cubic feet per second
Corps - US Army Corps of Engineers
cy - cubic yards
CZMA - Coastal Zone Management Act
DCAR - Draft Coordination Act Report
DMMO - Dredged Material Management Office
EIR - Environmental Impact Report
EIS - Environmental Impact Statement
EIS/R - Environmental Impact Statement/Report
 DEIS/R - Draft Environmental Impact Statement/Report
 FEIS/R - Final Environmental Impact Statement/Report
 SEIS/R – Supplemental Environmental Impact Statement/Report
EO - Executive Order
EPA - Environmental Protection Agency
EQ - Environmental Quality
ER - Engineering Regulation
ERA - Ecological Risk Assessment
ESA - Endangered Species Act
FCSA - Feasibility Cost Sharing Agreement
FUDS - Formerly Utilized Defense Sites
FWS - Fish and Wildlife Service
FY - Fiscal Year
GRR – General Reevaluation Report
HAAF - Hamilton Army Air Field
HEC - 1 - Hydraulic Engineering Center flood hydrograph package, which includes rainfall runoff modeling
HEC-RAS - Hydraulic Engineering Center River Analysis System, which includes flood hydraulic modeling
HEP - Habitat Evaluation Procedure
HRG - Hamilton Restoration Group
HTRW - Hazardous, Toxic and Radiological Waste
HU - Habitat Unit
HWRP – Hamilton Wetland Restoration Project
IDC - Interest During Construction
IDIQ - Indefinite Delivery, Indefinite Quantity

LERRDS - Lands, Easements, Rights of Way, Relocations, and Disposal Sites
LGVSD - Las Gallinas Valley Sanitary District
LTMS - Long Term Management Strategy
MCACES - Corps of Engineers Micro Computer Aided Cost Estimating System
MCFCWCD - Marin County Flood Control and Water Conservation District
mcy - million cubic yards
MHW - Mean High Water
MHHW - Mean Higher High Water
MLW - Mean Low Water
MLLW - Mean Lower Low Water
MPOND - a hydrologic routing model with simulates flows and resulting changes in
 water surface elevations in a network of ponds connected by one or multiple
 hydrologic control structures
NED - National Economic Development
NEPA - National Environmental Policy Act
NGVD - National Geodetic Vertical Datum
NHP - New Hamilton Partnership
NOAA - National Oceanic and Atmospheric Administration
NMFS - National Marine Fisheries Service
NSD - Novato Sanitary District
O&M - Operations and Maintenance
OMRR&R - Operation, Maintenance, Repair, Replacement and Rehabilitation
 Requirements
OSE - Other Social Effects
PAC – Post-Authorization Change
PCA - Project Cooperation Agreement
PED - Pre-Construction Engineering and Design
PSP - Project Study Plan
RED - Regional Economic Development
RWQCB - San Francisco Bay Regional Water Quality Control Board
SCC - California State Coastal Conservancy
SHPO - State Historic Preservation Officer
SLC - California State Lands Commission
USACE - United States Army Corps of Engineers
WRDA - Water Resources Development Act

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